

REMARKS

Claims 1, 3-17, 19-39, 41-60, 62-73, 75-82, 84-87 and 89-102 are pending in this application. Applicants respectfully request reconsideration and continued examination of this application in view of the amendments and the following remarks.

1. Status of the Claims

Claims 1, 17, 33, 38, 73, and 86 have been amended to further define the claimed subject matter as requiring a calcium source comprising calcium chloride, monocalcium phosphate, and at least two calcium salts chosen from calcium hydroxide and calcium carbonate. Support for the amendments can be found in the specification as originally filed, for example on:

Page 5, lines 28-30;

Page 14, lines 9-15; and

Page 15, line 24 to Page 16, line 14.

As a result of the above amendments, claims 2, 18, 40, 61, 74 and 88 have been canceled. Additionally, claims 25, 77, and 79 have been amended to recite "the calcium source" rather than "the one or more calcium salts" for consistency with the claims on which claims 25, 77, and 79 depend respectively. Claims 41 and 89 were amended to correct an informal error, namely to recite "monocalcium phosphate" rather than "calcium monophosphate."

2. Prior Art Rejections

Claims 1-6, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,851,578 to Gandhi (Gandhi). Claims 7-12 and 14-37 are rejected under 35 U.S.C. 103(a) as being obvious over Gandhi. Additionally, claims 38-82 and 84-102 are rejected as being obvious over Gandhi in view of U.S. Patent No. 4,830,862 to Braun (Braun), and further in view of U.S. Patent No. 5,401,524 to Burkes et al. (Burkes).

3. **Neither Gandhi, Braun, or Burkes, alone or in combination, teach or suggest a beverage or beverage concentrate comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate**

Claims 1, 17, 33, 38, 73, and 86 have been amended to recite that the beverage and beverage concentrate comprise a calcium source comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate. None of Gandhi, Braun, or Burkes, alone or in combination, teach or suggest a beverage or beverage concentrate comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate.

First, Gandhi does not teach or suggest a beverage or beverage concentrate comprising a calcium source comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate. Instead, Gandhi teaches a beverage containing non-gel forming soluble fiber and a soluble salt of calcium and other mineral supplements along with a pharmaceutically active compound. The disclosed calcium source for the beverage of Gandhi is calcium lactate because, according to Gandhi, calcium lactate is the most soluble salt of calcium and has a good taste profile. See Gandhi, col. 4, lines 7-10. The calcium lactate may be formed *in situ* by the combination of lactic acid and calcium carbonate.

Accordingly, Gandhi does not provide any teaching as to a beverage or beverage concentrate comprising a calcium source comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate. Moreover, Gandhi actually teaches away from the use of calcium carbonate because of its alleged poor solubility and gas formation during dissolution in alkaline intestinal medium and teaches away from the use of calcium phosphates because of their alleged poor water solubility and insignificant solubility in basic or neutral conditions. See Gandhi, col. 3, lines 45-65.

Braun also does not teach or suggest a beverage or beverage concentrate comprising a calcium source comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate. In contrast, Braun teaches the use of calcium sulfate, preferably in combination with calcium chloride, to improve the solubility of other calcium sources (mainly calcium hydroxide and

calcium carbonate) in the presence of significant amounts of edible acids, such as phosphoric and citric acids.

More particularly, Braun recites that mixtures of calcium sulfate and calcium carbonate (or calcium hydroxide), which optionally and preferably include calcium chloride and/or calcium gluconate are particularly preferred calcium sources. See p. 5 of Braun, lines 3-12. The calcium sulfate-calcium chloride combination of Braun, for example, allegedly reduces precipitation and deposition of calcium salts on equipment surfaces during pasteurization. See Abstract of Braun. Therefore, Braun's teaching of using calcium sulfate in combination with another calcium source does not teach or suggest a calcium source comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate.

Further, although Braun discloses a multitude of possible sources of calcium in Braun (such as calcium carbonate, calcium sulfate, calcium chloride, calcium phosphate, calcium hydrogen phosphate, calcium dihydrogen phosphate, calcium hydroxide, as well as the respective sour salts of calcium, e.g. calcium citrate, calcium malate, calcium gluconate or calcium lactate), Braun provides no teaching for selecting the particular combination of calcium chloride, monocalcium phosphate, and one of calcium hydroxide and calcium carbonate from the hundreds of possible combinations of calcium sources disclosed by Braun. See p. 5 of Braun, lines 3-12. Moreover, Braun particularly teaches the use of calcium sulfate in combination with another calcium source as discussed previously. Thus, Braun has no teaching which would lead one to form a beverage composition or beverage concentrate composition comprising a calcium source comprising calcium chloride, monocalcium phosphate, and one of calcium hydroxide and calcium carbonate.

The claimed unique and particular combination of calcium sources of the present invention has been found by the present invention to provide the unexpected result of imparting a cleaner taste that is closer to an unfortified drink as compared to a blend of calcium hydroxide and calcium chloride alone or calcium carbonate and calcium chloride alone. See Specification, pp. 15-16.

Burkes further does not remedy the deficiencies of Gandhi and Braun. Burkes is directed to storage-stable, calcium-fortified pre-mixes for beverage concentrate production. Burkes provides that suitable calcium sources include

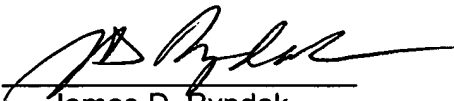
calcium carbonate, calcium oxide, calcium hydroxide, calcium chloride, calcium phosphate, calcium hydrogen phosphate and calcium dihydrogen phosphate, as well as the respective organic salts of calcium, e.g. calcium citrate, calcium malate, calcium tartrate, or calcium lactate. According to Burkes, mixtures of calcium carbonate, calcium hydroxide, calcium chloride, calcium sulfate, and calcium nitrate are preferred calcium sources, and calcium carbonate, calcium hydroxide, and mixtures thereof are most preferred. See Burkes, col. 14, lines 16-20. Thus, Burkes, as in Gandhi and Braun, also has no particular teaching which would lead one to form a beverage composition or beverage concentrate composition comprising a calcium source comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate as claimed.

In view of the above, claims 1, 3-17, 19-39, 41-60, 62-73, 75-82, 84-87 and 89-102 are patentable over Gandhi, Braun, or Burkes because none of the references, alone or in combination, teach or suggest a beverage concentrate or beverage system comprising a calcium source comprising calcium chloride, monocalcium phosphate, and at least one of calcium hydroxide and calcium carbonate.

CONCLUSION

In view of the foregoing, all of the rejections have been overcome and claims 1, 3-17, 19-39, 41-60, 62-73, 75-82, 84-87 and 89-102 are allowable. An early indication of allowance is solicited.

Respectfully submitted,

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